

3,105/62/0-7/055/002/007
3407/0301

Study of stationary ...

$$\int_0^{2\pi} u_1(t) dt = 0$$

In the case of an asymmetric regime of stationary oscillations, characterized by the fact that the choke L is saturated only once during the period of oscillations, one obtains the solution of system (7) in the form of 3 expressions (for λ and θ), and equation

$$\sin(\psi + \varphi) = \frac{1}{V} \left(-A \sin \theta + \frac{1}{2b} M \right) = -\frac{1}{V} \left(S - \frac{1}{2\pi b} \right)$$

for ψ ; hence the phase ψ is not uniquely determined; the system has 2 solutions: $u_1^{(1)}(t)$ and $u_1^{(2)}(t)$, corresponding to $\cos(\psi + \varphi) > 0$ and

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Study of stationary ...

S/103/62/017/005/002/007
D407/230:

$\cos(\psi + \varphi) < 0$, respectively. The stability of the obtained solutions is analyzed by means of Lyapunov's theorem and Hurwitz's criterion. It was found that only the first solution $i_1^{(1)}$ is stable; the second solution is unstable for any parameters of the generator. The region of existence of the asymmetric regime is determined. The necessary condition for the absence of repeated saturation is $i_1(0) \ll \omega/\omega_0$. This condition is also the sufficient condition in the interval $0.5 < \omega < 1.5$. The assumptions underlying the analysis give a good approximation to actual processes in most practical cases; hence the proposed method can be considered as general, being applicable to other operating conditions of magnetic pulse-generators and related devices. The obtained formulas are not only qualitatively correct, but they are also in quantitative agreement with experiment; hence they can be used in the design of generators. An illustrative example is given. There are 5 figures and 4 references: 2 Soviet-bloc and 2 non-Soviet-bloc. The references to the English-language publications read as follows: W. S. Melville. IEEE Part III, v. 26, no. 53, 1951; K. Busch, A. Hasley, C. Neitzert. BSTJ. no. 34, 1955.

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Card 5/5

L-4947-66

ACC NR: AP5025737

SOURCE CODE: UR/0286/65/000/014/0088/0088

AUTHORS: Meyerovich, L. A.; Konev, K. V.; Khvedynich, V. P.

ORG: none

TITLE: A two-cycle diodeless shifting register using ferrite cores. Class 42, No. 174833

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 88

TOPIC TAGS: ferrite phase shifter, ferrite core memory, circuit coupling

ABSTRACT: This Author Certificate presents a two-cycle diodeless shifting register using ferrite cores. It was designed to increase the register's response time and reduce the power consumption. Each register semidischarge contains buffer and output cores connected directly to the tie ring. The normalization cores are connected to the buffer cores by short-circuit coils. The windings of the normalization cores, having a small coercive force for their shifting in the -B state, are connected to the source of the shift current of a given cycle. The shift windings of the normalization cores in the +B state are connected to the shift current source of the second cycle. These normalization cores shift windings in the

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UDC: 681.142.-523.6.007.

0701 1591

L 4947-66

ACC NR: AP5025737

+B state are connected to the shift windings in the -B and the +B state of the first and second buffer cores, with a large coercive force, and the third and fourth cores, with a small coercive force, thereby forming the indicated short-circuit tie rings. The shift windings in the +B state of the first and third cores and the shift windings in the -B state of the second and fourth cores are connected in series, and these, in turn, are connected to the shift current source of the given cycle. The shift windings in the +B state of the first and second cores are connected by a ballast resistance to the series-connected windings of the output cores of the previous discharge. The shift windings in the +B and the -B states of the third and fourth cores, connected in series, are joined to the shift current source. The series-connected shift windings in the +B state of the first and second cores and the shift windings in the -B state of the third and fourth cores are connected to the shift windings in the +B state. The first and second output cores, with a small coercive force, are also connected in series, thereby forming a ring. The series-connected shift windings in the +B and -B state of the first and second output cores are connected respectively to the shift pulse sources of the first and second cycles.

SUB CODE: DP, EC/ SUBM DATE: 24Jul64

OC
Card 2/2

ACC NR:AP6029462

BOOKS 001 01, 0100/00/021/000/0049/0005

AUTHOR: Meyerovich, L. A.; Zaytsev, E. P.; Vatin, I. N.

ORG: None

TITLE: Magnetic current pulse oscillators

SOURCE: Radiotekhnika, v. 21, no. 8, 1966, 49-55

TOPIC TAGS: pulse oscillator, pulse generator, computer application, digital computer, magnetic circuit, frequency stability

ABSTRACT: A new current pulse oscillator design principle used for advance pulse oscillators in digital magnetic computers and as current oscillators in magnetic yokes and possessing substantial advantages over other types is described. These oscillators, in addition to reliability and effective use of power, provide a high degree of pulse amplitude stability under sharply changing load conditions and a short pulse decay time when the load is inductive. Experimental data on two different types of magnetic current pulse oscillators are given. Orig. art. has: 19 formulas and 5 figures.

SUB CODE: 09,20/SUBM DATE: None

Card 1/1

UDC: 621.373

ACC NR: AP7001432

SOURCE CODE: UR/0413/66/000/021/0156/0156

INVENTOR: Meyerovich, L. A.; Konev, K. V.; Sulin, L. I.

ORG: none

TITLE: Logic NOR circuit based on a stage of a magnetic diodeless shift register.
Class 42, No. 188141 [announced by the Military Order of Red Banner Academy of Communication (Voyennaya krasnoznamennaya akademiya svyazi)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 21, 1966, 156

TOPIC TAGS: magnetic circuit, logic circuit, shift register

ABSTRACT: A logic NOR circuit is described (see Fig. 1) which is based on one stage of a diodeless magnetic shift register using toroidal rectangular loop input, output

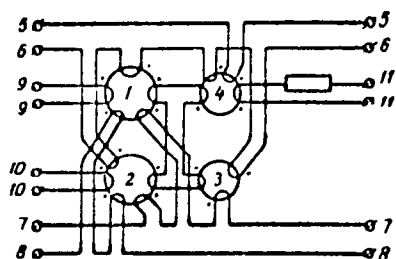


Fig. 1. Logic NOR circuit

1, 2, 3, 4 - Cores; 5 - write winding; 6 - read winding; 7 - priming winding; 8 - bias winding; 9, 10 - input windings; 11 - output winding.

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UDC: 681.142.07

ACC NR: AP7001432

and buffering cores, and a system of windings. The cores are threaded by a common wire without a ballast resistance. An additional input core is included in the common loop to prevent reverse flow of information during the NOR operation. The read winding interlaces all cores, the write winding is passed through one output core, and the priming pulse winding is threaded through the buffer and output cores. The constant bias winding is threaded through input cores only. Orig. art. has: 1 figure. [BD]

SUB CODE: 09/ SUBM DATE: 02Aug65/ ATD PRESS: 5110

Card 2/2

ACC NR: AP7004780

SOURCE CODE: UR/0413/67/000/001/0093/0093

INVENTOR: Meyerovich, L. A.; Khvedynich, V. P.

ORG: none

TITLE: A magnetic shift register. Class 42, No. 190082. [announced by Military Academy of Communications (Voyennaya Krasnoznamennaya akademiya s yazi)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1967, 93

TOPIC TAGS: computer component, shift register, *MAGNETIC CORE*,

ABSTRACT: An Author Certificate has been issued for a magnetic shift register which contains magnetic cores with input, output, and control coils. In order to provide multiple-amplification of the magnetic flux, every section of the register contains four transforming cores with one-turn input, output, and control coils, and one gate core with one-turn input and control coils. The input coils of transforming cores are connected in series to form a closed ring, while the input coil of the gate core and output coils of the transforming cores are connected in series and also are coupled to the output connectors to form an output coupling loop. The control coils of all cores are connected with the sources of current clock pulses and the input connectors are tied to the inputs of the second and the fourth input coils of transforming cores, while all input coils of transforming cores are joined in conjunction with the control cores. The output coils of the first and second transforming cores are connected counterclockwise, while the third and fourth are connected in conjunction with

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UDC: 681.142.07

ACC NR: AP7004780

the input coils, the input coil of the gate core is connected counterclockwise with respect to the control coil. In order to provide simultaneous amplification of flux and current when one-turn coils are used, the series-connected output coils of the first and second cores and respectively the third and fourth cores are connected in parallel, while the input coil of the gate core is connected in series with them. [CS]
Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 20Jul65/

Card 2/2

MEYEROVICH, M., inzh.

All-purpose kitchen hearth. Stroitel' no.3:27 Mr '59.
(MIRA 12:6)

(Boilers)

MEYEROVICH, M., inzh.

Mil-purpose heating and cooking unit. Stroitel' no. 3:27 Mr '61.
(MIRA 14:2)

(Furnaces)

MEYEROVICH, O.; MEL'NIKOV, V.

Establishing work norms and wages in agriculture. Vop.ekon.
no.6:144-149 Je '60. (MIRA 13:6)
(Agriculture--Production standards)
(Wages)

MEYEROVICH, O.

Economic problems in the further development of the collective
farm system. Vop. ekon. no.7:159-160 J1 '61. (MIRA 14:7)
(Agriculture—Economic aspects)

MEYEROVICH, R. I. (Prof.)

Rasstroistva Skhemy Tela Pri Psikhicheskikh Zabolevaniyakh (Sensory Disturbances caused by Cerebral Lesions), 307 p., Leningrad, 1948.

DOROFEYEV, Boris Grigor'yevich, starshiy prepodavatel'; MEYEROVICH, Shmariko Samuylovich, kand.tekhn.nauk, dots.; STUKALKIN, Andrey Nikolayevich, inzh.; KUROCHKA, Aleksandr Leont'yevich, inzh.

Experimental investigation of the ventilation for the new-type starting resistors in electric locomotives. Izv.vys.ucheb.zav.; elektromekh. 1 no.11:107-111 '58. (MIRA 12:2)

1. Kafedra teoreticheskikh osnov teplotekhniki Novocherkasskogo politekhnicheskogo instituta (for Dorofeyev). 2. Zaveduyushchiy kafedroy teoreticheskikh osnov teplotekhniki Novocherkasskogo politekhnicheskogo instituta (for Meyerovich). 3. Novocherkasskiy elektrovostroitel'nyy zavod (for Stukalkin, Kurochka).
(Electric locomotives--Equipment and supplies)

110-58-5-3/25
AUTHORS: Dorofeyev, B.G., Lozanovskiy, A.L., Engineers and
Meyerovich, Sh.S., Ushakov, V.G., Candidates of
Technical Sciences

TITLE: The Cooling of Tape-wound Starting Resistances Type KF
(Ob okhlazhdenii lentochnykh puskovykh soprotivleniy
tipa KF)

PERIODICAL: Vestnik Elektromyshlennosti, 1958, Vol 29, Nr 5,
pp 9 - 12 (USSR).

ABSTRACT: Resistance-alloy tape-wound resistances, type KF,
are used as starting resistances in electric locomotives, type
N8 and VL-23 and in motor coaches, trolley buses, etc. They
are cooled by free or forced-air circulation and are appreciably
lighter, smaller and cheaper than cast-iron resistances.
However, they are not widely used because inadequate information
is available about their thermal rating.
The Novocherkassk Polytechnical Institute and the laboratory
of the electric locomotive works made an experimental study
of the cooling of the resistances. They consist of assemblies
of standard resistance elements. An individual element,
illustrated in Figure 1, consists of resistance-alloy ribbon
wound on edge to form a coil which is insulated from its
channel-shaped supporting bar by 2 segmental porcelain insulators.

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The Cooling of Tape-wound Starting Resistances, Type KF

The rate of air flow and the aspect of the element in relation to the flow have an important bearing on the rating. It is known from operating experience that the highest local temperature should not exceed 450 °C, or else the porcelain insulators crack. It was required to find the relationship between the permissible loading and the air speed.

Thermocouples were used to determine the temperature of the element at different places. The air speed ranged from 0 - 18 m/sec. The current was so chosen that the highest local temperature did not exceed 350 °C. In one arrangement, the porcelain insulators were arranged head-on to the air stream, as shown in Fig. 3a, which is the usual arrangement. The arrangement of 3b, in which the insulators are edge-on across the stream, was also tested. In both cases, the outer edges of the resistance elements were found to be better cooled than the inner. Thus, the conditions of cooling are not greatly changed when the element is turned through 90°. Also, under a wide range of conditions, the maximum temperature is on the leeward side of the coils. For example, with an air flow of 15 m/sec and a current of 142 A, the temperature of the leeward

Card2/5 parts of the spiral was 382 °C, the top and bottom were at

110-58-5-3/25

The Cooling of Tape-wound Starting Resistances, Type KF

142 °C and the windward side 90 °C. Holes were then made in the supporting bars to reduce the temperature of the leeward side of the coils. The holes occupied 20% of the area of each bar. With this arrangement the cooling was much more uniform and the current rating could be increased. The relationship between the rate of air flow and the permissible current in the element, in the two alternative positionings described above, are shown in Figure 4.

Tests were next made on a complete starting-resistance assembly consisting of four rows of seven elements each.

Measurements were made of air flow, coil temperatures and power. Once again, the middle of the elements was hottest.

The temperature difference between the windward and leeward parts of a coil was 100 °C. The third row of elements was the hottest, and showed the highest temperature on its leeward side but the porcelain insulators did not get too hot.

A graph of the relationship between the permissible current and the rate of air flow for a maximum temperature of 350 °C is given in Figure 5. In addition to the usual assembly with the elements arranged one behind the other, a staggered

honeycomb arrangement was tried, the size of the box and

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110-58-5-3/25

The Cooling of Tape-wound Starting Resistances, Type ZF

the number of elements being unchanged. Again holes were drilled in the bars. The performance graphs plotted in Fig.5 show that the rating is higher with the honeycomb than with the usual square arrangement. With an air flow of

45 m³/min, the permissible current for the standard box is 46.75 A but in the modified assembly it was 51.9 A. This applies only with forced cooling; with natural ventilation the honeycomb arrangement is not so good.

A number of tests were also made under conditions of transient loading to determine the time different loads take to produce a temperature of 350 °C. The honeycomb arrangement was used and the results, given in Figure 6, show that the resistances take about an hour to reach a steady temperature with the normal rated current, although cast-iron elements take still longer. Starting from cold, the resistances can carry up to three times rated current for 5 minutes. Under transient conditions, the rate of forced ventilation is important only for light currents. With currents of the order of 60 A and air-flow rates up to 20 m³/min, the permissible time of operation is 4 - 6 min and is practically independent of the rate of air flow.

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The Cooling of Tape-wound Starting Resistances, Type KF 110-58-5-3/25

There are 6 figures.

ASSOCIATIONS: Novocherkasskiy politekhnicheskiy institut
(Novocherkassk Polytechnical Institute) and
Novocherkasskiy elektrovostroitel'nyy zavod
(Novocherkassk Electric Locomotive Works)

SUBMITTED: June 24, 1957

Card 5/5

ACCESSION NR: AT4038882

S/2884/60/106/000/0043/0047

AUTHOR: Meyerovich, Sh. S.; Batishchev, Ya. F.

TITLE: Heat conductivity of carborundum

SOURCE: Novocherkassk. Politekhnicheskii institut. Trudy*,
v. 106, 1960. Teplotekhnika i gidravlika (Heat engineering and
hydraulics), 43-47

TOPIC TAGS: carborundum refractory, heat conductivity,
conductivity calculation, conductivity measurement

ABSTRACT: The temperature dependence in the 0—1000C range of
heat conductivity of commercial carborundum has been measured because
of contradictory data in the literature. The measurements were
based on the principle of the steady flow of heat through a plate.
Experimental equipment is described which was designed by the
Leningrad Scientific Research Institute of Refractories. The
experimental plot of heat conductivity vs temperature is shown to

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ACCESSION NR: AT4038882

be a straight line, the equation of which is given. Good agreement was established between the data derived from the equation and certain data from the literature. The reliability of the equation is confirmed and its use in heat-transfer engineering calculations is recommended. Orig. art. has: 2 figures and 6 formulas.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 16Jun64

ENCL: 00

SUB CODE: MT

NO REF SOV: 008

OTHER: 000

Card 2/2

DOROFEYEV, B.G.; MEYEROVICH, Sh.S.; NOVOGRENKO, N.M.

Study of heat transfer and temperature fields of improved KF-1
and KF-2 electric resistors. Izv. vys. ucheb. zav.; elektromekh.
4 no.2:136-143 '61. (MIRA 14:9)
(Electric resistors) (Electric railroads--Electric equipment)

MEYEROVICH, Shmanko Samuilovich, kand. tekhn. nauk, dotsent; DOROFEEV,
Boris Grigor'yevich, kand. tekhn. nauk, ispolnyayushchiy
obyazannosti dotsenta

Heat emission of KF type electric resistors. Izv. vys. ucheb. zav.;
elektromekh. 6 no. 11:1271-1273 '63. (MIRA 17:4)

1. Zaveduyushchiy kafedroy teoreticheskikh osnov teplotekhniki
Novocherkasskogo politekhnicheskogo instituta (for Meyerovich).
2. Kafedra teoreticheskikh osnov teplotekhniki Novocherkasskogo
politekhnicheskogo instituta (for Dorofeyev).

MEYEROVITCH, T. A.

PA 172

USSR/Chemistry-Norcamphane
Chemistry-Bicyclo-(2.2.1)-Heptane Series
Chemistry-Ethers

Feb 1947

"Synthesis of Some Derivatives in the Bicyclo-
(2.2.1)-Heptane Series," A. F. Plate, T. A.
Meyerovitch, 6 pp

"Izv Ak Nauk Khim" No 2

Extension of the field of applicability of diene
synthesis as a result of utilization of a repre-
sentative of vinyl ethers as a philodiene.

8r3

MEYEROVICH, T. A.

"Acetylation of the Ethylene Hydrocarbons by Kondakov's Method."
Sub 22 Feb 51, All-Union Sci Res Inst of Synthetic and Natural Essential Oils, Ministry of the Food Industry USSR.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 2 May 55

ACC NR: AP6031522

SOURCE CODE: UR/0292/66/000/009/0021/0023

AUTHOR: Meyerovich, Ye. A. (Engineer); Palastin, L. M. (Candidate of technical sciences); Platonov, A. M. (Candidate of technical sciences); Popov, K. K. (Engineer); Serebryanik, L. B. (Engineer); Sobolev, I. S. (Engineer); Syzrantsev, V. I. (Engineer)

ORG: none

TITLE: Disk-type brushless synchronous generator

SOURCE: Elektrotehnika, no. 9, 1966, 21-23

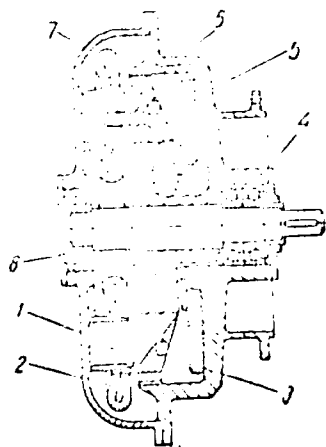
TOPIC TAGS: synchronous generator, electric machine, brushless generator, electric generator, magnetic circuit

ABSTRACT: A general description of a new design (Author's Certificate 169556, Bull. izобр., 1965, no. 7) of disk-type synchronous generator (see figure) is presented; the generator was developed at VNIIEM. This design is an improvement over a previous "externally-closed-magnetic-circuit" construction (VZP). Design features and some characteristics of both are compared. These conclusions are offered: (1) The new design has a smaller weight and axial length than other types of brushless synchronous generators; (2) The new rotor has high mechanical strength.

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UDC: 621.313.322

ACC NR. AP0031522



its poles are not subjected to bending forces (as is the case in claw-type construction). (3) The new construction is stiff and has good heat removal and ventilation conditions. "Cand. Techn. Sc. G. N. Fridman, Engineers Ye. V. Kel'tseva, E. I. Sagalov, V. P. Pyatkov, N. I. Shcherbakov, S. K. Eytimovich, and others took part in developing the design and manufacturing practices of the new generator." Orig. art. has: 6 figures and 1 table.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 004

Card 2/2

FRADKIN, V.A.; MEYEROVICH, Ye.G.

Materials of dynamic study of allergy to tuberculin by means
of the blood neutrophil reaction in vitro. Sov.med. 1965
no.12:10-14 D '65. (MIRA 18:11)

1. Kontrol'nyy institut meditsinskikh biologicheskikh
preparatov imeni L.A.Tarasevicha (direktor - dotsent V.P.
Mikhaylov) i Moskovskaya tuberkuleznaya klinicheskaya shkola
"Zakhar'ino" (glavnyy vrach V.P.Petrik).

MEYEROVICH, Ya.M.; DLOUGIY, V.V.

Hydraulic sorting of wastes from the crushing of limestone without using
suction dredge feeding of starting material. Stroim. 10 no.8:24-26
Ag '64. (MIRA 17:12)

MEYEROVICH, Ye.A.

621.315.051 : 621.3.014/015
 980. CALCULATION OF CURRENTS AND VOLTAGES IN
 A POWER SYSTEM SUPPLYING UNBALANCED LOADS.
 Ye.A. Meyerovich, V.I. Gorushkin and E.B. Golemba.
 Elektrichestvo, 1955, No. 9, 32-9. In Russian.

The power system considered is assumed to consist of two parts: a symmetrical 3-ph. system with symmetrical load and generators, and an asymmetric part consisting of 1-ph. loads. Currents and voltages in the symmetrical part are easily found by symmetrical-component methods, provided that currents and voltages at the function of the two parts are known; however, the latter depend on the operating conditions and parameters of the whole system. For this reason symmetrical components can rarely be used. The only method which leads to a comparatively rapid determination of the required values is that of successive approximations which also saves much calculation labor. However, a successful application of this method is conditional on the convergence of the approximations and this again depends on correct a priori assumptions. Mathematical convergence criteria may be often misleading in this respect, if applied to an unsuitable scheme. Correctly applied, the method enables a system with many 1-ph. loads to be resolved fairly simply and accurately, as is shown by a series of examples. Special recommendations are made for traction loads representing special

cases of 1-ph. loads. The case of traction loads supplied at both ends may be reduced to that of a load supplied at one end only. Introduction of equalizing currents does not appreciably alter the asymmetry of currents and voltages. This depends mainly on the distribution of the traction load between the phases of the substations and not on the method of supply of the contact system. The asymmetry of the generator currents depends on the load distribution between the substations; this has to be considered in the project of a traction system. The calculations by successive approximations are suitable for pre-determining voltage asymmetries. B.F. Kraus

ABRIKOSOV, S.V.; ALEKSEYEV, A.P.; ZOTOV, N.M.; KUIRYASHOV, G.F.; LAPOV, H.I.;
LEBEDEV, V.P., inzh.; CHEKMELEV, Ye.Ye.; MEYEROVICH, Ye.A., inzh.,
retsensent; RYBAKOVA, V.I., inzh., red.izd-va; SOKOLOVA, T.F.,
tekhn.red.

[Gasoline-electric and diesel-electric power units with a capacity
from 0.5 to 400 kilowatts; reference book] Benzoelektricheskie
i dizel'elektricheskie agregaty moshchnost'iu ot 0,5 do 400 kvv;
spravochnik. Pod red. V.P.Lebedeva. Moskva, Gos.nauchno-tekhn.
izd-vo mashinostroit.lit-ry, 1960. 543 p.

(MIRA 14:1)

(Electric power stations)

1. PETROV, A. D., and students SUMIN, I. G. MEYEROVICH, Z. A., KUDRINA, K. N.,
and TIK ONOVA, G. N.

2. USSR (600)

"The Synthesis of Secondary Alcohols and their Dehydration on Alumina", Zhur.
Obshch. Khim., 9, No. 23, 1939. Lab. of Organic Chem., Gor'kiy State Univ.
Received 21 June 1939.

9.  Report U-1626, 11 Jan 1952.

1. MEYEROVSKIY, V.
2. USSR (600)
4. Moving Pictures, Documentary
7. Order of showing popular science, scientific and documentary news films, Kinomekhanik, No. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

MEYERS, G.

3650. MEYERS, G. Aerodinamika vertolet. Perevod s angl. V. I. Biryudina
Pod red. I.P. Bratukhina. M., Ocorongiz, 1954. 256. s.s. ill. 23sm. 12r.
80k. V per.-Biczlogr: s. 245-252. (54-57607) p 629. 35.4 + (16.3)

SO: Knizhnaya Letopis', Vol. 3, 1955

MEYERSON, A.

Pioneers of the future in the ~~Altai~~ Construction and Installation
Administration. Muk.-elev. prom. 27 no.7:3-4 J1 '61. (MIRA 14:7)

1. Nachal'nik Altayskogo upravleniya Spetselevatormel'stray.
(Altai Territory--Grain elevators)

80(1)

SOV/98-59-10-7/20

AUTHORS:

Meyerson, A.B., Candidate of Economic Sciences, and Avakyan, A.B.,
Engineer

TITLE:

The Problem of the Allocation of Funds Spent on the Construction
of Reservoirs

PERIODICAL:

Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 10, pp 25-30 (USSR)

ABSTRACT:

The article is in the nature of a discussion of the allocation of expenditure related to the construction of reservoirs, the total surface area of which, including lakes such as Baykal, Onegzhskoye, etc., amounts to 7 million hectares. Expenditure is divided into: 1) General expenditure on construction; 2) special expenditure, connected with the use of the reservoir by some branch of the economy, and 3) indirect expenditure on expansion, modernization, etc. The various proportions of the total expenditure on reservoirs is shown in the table, which shows that about 70% goes toward the preparation, and in this connection 2 problems arise: the allocation of the available funds in proportion to the benefit derived from the reservoir as part of the GES, and the amount of

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The Problem of the Allocation of Funds Spent on the Construction of Reservoirs

funds to be allocated to cover the cost of transferring buildings and equipment to make way for the reservoirs. It is to the latter question that this article is mainly devoted. Such expenditure should be distinct from unproductive losses such as those caused by natural disasters, etc., and the socialist conception of reimbursable outlay is dwelt on briefly - financial outlay must be compensated for by the setting-up of means of production; the financial resources which can be regarded as reimbursable are enumerated (expenditure on the moving of population, research of the natural resources of the flooded area, etc.). Fig.1 shows in diagram form how the productive funds used on the area flooded are recovered, usually requiring isochronous construction instead of capital repairs, which provide for gradual recovery. Expenditure on the recovery of losses incurred by the flooding of an area is only required to restore the status quo as it was before flooding, i.e., to break even, and the correct calculation of this expenditure is of great importance. The authors proceed to deal with the recovery of unproductive funds, including personal property, which is carried out at the expense of the accumulation fund and citizens'

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SOV/98-59-10-7/20

The Problem of the Allocation of Funds Spent on the Construction of Reservoirs

personal income; this is normally realized in the form of electric energy produced by the GES. Diagrams of the recovery of unproductive funds are shown in figs.2 and 3. Touching on the question of whether the value of property destroyed by the flooding should be compensated for by the construction costs of the GES, the author finds that it should be compensated for by a sum equal to that spent on the dam, GES, etc.; in the event of compensation being more than adequate, it should be paid in the form of a lump sum. A quotation from Marx is included which states that compensation should only be paid for the results of human labor, not for the deprivation of natural elements. There are 3 diagrams and 1 table.

Card 3/3

MEYERSON, A.B., kand.ekonomicheskikh nauk; NAZAROVA, V.N., inzh.

Calculation of damage from temporary inundations under natural
and controlled conditions. Gidr.stroi. 31 no.3:41-42 ~~42~~ 41.
(MIRA 14:4)

(Floods)

МРЯППОН, А.В., канд. экон. наук, ЗОДОВА А.С., инж., КАПИКН, Ю. Л., инж.

Longterm organization of a motortruck unit. Avt. dor. 28 no. 3
23-24 S '65. (MIRA 1960)

MEYERSON, A.
USSR/Electronics - Instruments

Dec 52

"A Modulation Meter," A. Meyerson

Radio, No 12, p 27

Describes a meter for measuring the modulation index (from 10 to 100%). Unit consists of two duo-diode tubes and a milliammeter with a full-scale sensitivity of 100 μ A. Frequency variations of the modulating voltage from 200 to 10,000 cps do not cause a change in meter reading.

14

MEYERSON, A.

Portable board for testing processes of radio tubes. Radio no.12:
60 D '53. (MLRA 6:12)

(Radio--Apparatus and supplies--Testing)

MEYERSON, Anatoliy Meyerovich; KORNDORF, S.F., redaktor; FRIDKIN, A.M.,
tekhnicheskii redaktor.

[Direct current ohmmeters] Ommetry postoiannogo toka. Moskva,
Gos.energeticheskoe izd-vo, 1954. 119 p. (Massovaya radiobiblio-
teka, no.204). (MLRA 8:3)
(Ohmmeter)

MEYERSON, A.

USSR/Electricity

Card 1/1

Author : Meyerson, A.

Title : An Ohmmeter with a device for smooth regulation of measured limits.

Periodical : Radio, 3, 61 - 62, Mar, 1954

Abstract : Use of a milli-ammeter as an ohmmeter is described. In order to increase the measurable range of the resistances, a resistance selector is used in conjunction with the milli-ammeter. The article contains circuit diagrams.

Institution :

Submitted :

MEYERSON, A.

Combined measuring instrument with a resistance box. Radio no.8:
56-60 Ag '54. (MLRA 7:8)
(Electric meters)

PHASE I BOOK EXPLOITATION

1126

Meyerson, Anatoliy Meyerovich

Radioizmeritel'naya tekhnika (Radio Measurement Technique) Moscow, Gosenergoizdat, 1957. 414 p. (Series: Massovaya radiobiblioteka. Uchebnaya seriya, vyp. 284) 75,000 copies printed.

Ed.: Korndorf, S.F.; Tech. Ed.: Medvedev, L.Ya.; Editorial Board of Series: Berg, A.I., Dzhigit, I.S., Kulikovskiy, A.A., Smirnov, A.D., Tarasov, F.I., Chechik, P.O., Shamshur, V.I.

PURPOSE: The book may be used as a textbook for studying the fundamentals of radio measurement technique. It may also be used as a reference book for constructing measuring instruments. The book is intended for readers who have completed the seventh grade of secondary school and who have studied the fundamentals of radio and electronics.

Card ~~1/12~~

Radio Measurement Technique 1126

COVERAGE: The author discusses basic methods of making radio measurements and describes the constructions of various measuring instruments. He also explains the principles of their circuit design. No personalities are mentioned. There are 178 Soviet references (including 1 translation).

TABLE OF CONTENTS:

Introduction	9
Ch. 1. Basic Concepts of Measurement Technique	13
1. Measures and measuring instruments	13
2. Basic characteristics of measuring instruments	16
3. Requirements of measuring instruments	20
Ch. 2. Measurement of Direct Currents	21
1. Construction and basic characteristics of a permanent-magnet moving-coil indicating instrument	21
2. Permanent-magnet moving-coil milliammeters	26

Card 2/12

MEYERSON, A.M., inzh.-mayor

Training aid to teach students to tune to homing radio stations.
Vest.Vozd.Fl. 41 no.2:83-84 P '59. (MIRA 12:4)
(Navigation (Aeronautics)—Study and teaching)

MEYERSON, A. YA.

Steam Boilers - Efficiencies; Electric Power Plants

Test on applying engineer Kovalev's method in the boiler room of an electric power plant.
Elek.sta. 23 no. 4 (1952) Inzh.

SO: Monthly List of Russian Accessions, Library of Congress, August ²195~~7~~, Uncl.

11/1/83
ALIMARIN, S.M., inzhener; MEYERSON, A.Ya., inzhener.

Mechanical drive for sonal valves of chain grates. Elek.sta. 28
no.9:83 S '57.

(Furnaces)

(MIRA 10:11)

MEYERSON, A.Ya., inzh.

Operation of burning-process regulators in boilers equipped with
chain grates. Elek.sta. 28 no.12:8 D '57. (MIRA 12:3)
(Boilers--Equipment and supplies)

Translation from: 15-57-4-4986
Referativnyy zhurnal, Geologiya, 1957, Nr 4,
p 134 (USSR)

AUTHORS: Golyenko-Vol'fson, S. L., Meyerson, B. M.

TITLE: Production of High-Strength Gypsum by Boiling in
Salt Solutions (Polucheniye vysokoprochnogo gipsa
metodom variki v rastvorakh soley)

PERIODICAL: Sb. nauch. rabot po khimii i tekhnol. silikatov.
Moscow, Promstroyizdat, 1956, pp 178-185

ABSTRACT: Bibliographic entry
Card 1/1

MYTERSON, D.S., arkhitektor; BOGDANOV, B.N., inzhener.

[Series of Standard Projects, no.228] Seriya tipovykh proektov, no.228.
Moskva, Gos. arkhitekturnoe izd-vo. No. 9 [Three-story fourteen-apartment
house with a store] Proekt trekhetazhnogo chetyrnadtsatikvartirnogo doma s
magazinom. 1949. 68 p. (MLRA 6:11)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye po tipovomu proyektirova-
niyu i massovomu stroitel'stvu. (Architecture--Designs and plans)

RUDKOVSKIY, Ye.N., inzh., red.; MEYERSON, D.S., kand. arkhitekt.,
red.; LITSKEVICH, V.K., kand. arkhitekt., red.; OTSEP, Ye.F.,
inzh., red.

[Provisional instructions on fire prevention requirements
for designing 10 story and higher apartment houses; for
use in experimental design and construction] Vremennye uka-
zaniia po protivopozharnym trebovaniyam dlia proektirovaniia
zhilykh zdaniy vysotoi 10 etazhei i bolee; dlia primeneniia
v eksperimental'nom proektirovanii i stroitel'stve
(SN 295-64). Moskva, Stroiizdat, 1965. 8 p. (MIRA 18:8)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po
grazhdanskomu stroitel'stvu i arkhitekture. 2. Gosudarstven-
nyy komitet po grazhdanskomu stroitel'stvu i arkhitekture pri
Gosstroeye SSSR (for Rudkovskiy). 3. Tsentral'nyy nauchno-
issledovatel'skiy i proyektnyy institut tipovogo i eksperi-
mental'nogo proyektirovaniya zhilishcha Gosudarstvennogo ko-
miteta po grazhdanskomu stroitel'stvu i arkhitekture pri
Gosstroeye SSSR (for Meyerson, Litskevich, Otsep).

KOREN'KOV, Vasil'y Yermeyevich, kandidat tekhnicheskikh nauk; MEYERSON,
D.S., kandidat arkhitektury; MOROZOVA, G.V., redaktor; AGRANOVSKIY,
Ye.A., tekhnicheskiy redaktor

[Standardization of houses and climatological factors] Tipizatsiya
zhilishcha i prirodno-klimaticheskie usloviya. Moskva, Gos. izd-vo
lit-ry po stroit. i arkhitekture, 1956. 198 p. (MIRA 10:2)
(Architecture and climate)

MEYERSON, E.G.

Problems of economic geography of Central Asia in dissertations
of graduate students of the Institute of Geography of the Academy
of Sciences of the U.S.S.R. Izv. AN SSSR. Ser.geog. no.3:110-
112 My-Je '54. (MLRA 7:7)
(Soviet Central Asia--Economic geography) (Economic geography--
Soviet Central Asia)

GAYEL', A.G., MEYERSON, E.G.

"Nature and agriculture of the Volga-Ural interfluvium" by M.S.
Bulanovskii, A.G. Doskach, V.M. Fridland. Reviewed by A.G. Gayel',
E.G. Meyerson. Izv. AN SSSR. Ser. geog. no. 6: 128-132 N-D '56.
(Caspian Depression—Geography) (MLRA 10:1)

S/091/63/000/001/001/003
D299/D308AUTHOR: Meerson, E.I.

TITLE: Construction of NC-46 (PS-4B) pumps

PERIODICAL: Energetik, no. 1, 1963, 4-5

TEXT: Piston pumps PS-4B made from stainless steel can only be used as dosing pumps for aggressive solutions mainly of aluminum sulfate and iron sulfate in water preparation plants, on condition that certain considerable changes in design are carried out. The above pumps installed at the Yaroslav TEl -3 (TETs-3) did not dose a solution of aluminum sulfate due to the constant distortion and jamming of the valves. After holes had been drilled and tapped in both valves (suction and delivery) into which stainless steel guide rods were screwed, corresponding holes being drilled in the plugs, jamming of the valves was completely eliminated, the pumps accurately dosing 330-340 liters of solution per hour. The danger of a change in the pump output due to an overload of the liquid being transferred from the delivery to the suction side must be re-

Card 1/2

Construction of ...

S/091/63/000/001/001/003
D299/D308

duced and the valve design altered so that output can be controlled automatically or manually without stopping the pump. The PS-4B pump is optimally produced in two size types: 300 to 350 liters/hr with a provision for decreasing to 150 liters/hr by means of a regulating valve, and 500-600 liters/hr with a range of control down to 300 liters/hr. This enables PS-4B pumps to be used as individual dosing pumps for clarifying agents, with an output of 100 to 600m³/hr. There is 1 figure.

Card 2/2

MEYERSON E.I

BUYANOVSKIY, M.S.; DOLGOPOLOV, K.V.; DUMITRASHKO, N.V.; KAMANIN, L.G.;
KRAVCHENKO, D.V.; MEYERSON, E.I.; ODUD, A.L.; POMUS, M.I.; ROSTOV-
TSEV, M.I.; RYAZANTSEV, S.N.; FEDOROVA, Ye.F.

Pavel Georgievich Ozhevskii; obituary. Izv.AN SSSR.Ser.geog. no.5:
88-89 S-0 '54.

(Ozhevskii, Pavel Georgievich, d.1954)

(MLRA 7:10)

MARSHAK, M. Ye., prof., ~~otv. red.~~; MEYERSON, E. S., ~~zam. otv. red.~~; ARONOVA, G. N., ~~red.~~; KRYZHANOVSKIY, G. N., ~~red.~~; ROZANOVA, L. S., ~~red.~~; GOLUBYKH, L. I., ~~red.~~; BUKOVSKAYA, N. A., ~~tekhn. red.~~

[Physiology and pathology of the heart] Fiziologiya i patologiya serdtsa; sbornik, posviashchennyi shestidesiatiletiu deistvitel'nogo chlena AMN SSSR professora V. V. Parina. Moskva, 1963. 310 p. (MIRA 16:9)

1. Akademiya meditsinskikh nauk SSSR, Moscow. 2. Chlen-korrespondent AMN SSSR (for Marshak).

(HEART)

MEYERSON, F. Z. (Phys)

MEYERSON, F. Z. (Phys) -- "The Mechanism of Compensation Hypertrophy of the Kidney and Its Stimulation by Physical Agents." Sub 22 Sep 52, Second Moscow State Medical Institute I. V. Stalin. (Dissertation for the Degree of Candidate in Medical Sciences)

SO: Vechernaya Moskva January-December 1952

MEYERSON, P. Z.

Effect of excision and stimulation of the cerebral cortex on the development of compensatory hypertrophy of the kidney in rabbits. Doklady Akad. nauk SSSR 84 no.2:401-404 11 May 1952. (CML 22:2)

1. Presented by Academician A. D. Speranskiy 8 March 1952.
2. State Scientific-Research Institute of Physical Methods of Therapy imeni I. M. Sechenov.

MEYERSON, F.Z.

Data on the development and mechanism of a compensatory process
in experimental heart failure. Arkh.pat., 16 no.4:30-43 O-D '54
(MLRA 8:10)

1. Iz Gosudarstvennogo tsentral'nogo nauchno-issledovatel'skogo
instituta fizicheskikh metodov lecheniya imeni prof. I.M.Sechenova
(dir. O.V.Glebova)

(HEART DISEASE, experimental,
compensatory funct.develop.)

Med 1232. Dynamics of concentration of glycogen in myocardium in experimental defects of heart. F. Z. Meerson, M. E. Egorova, and S. Ia. Gur. *Vop. med. Khim.*, 1955, 1, 336-338; *Referat. Zh. Biol.*, 1956, Abstr. No. 73487. The glycogen content of the left ventricular heart muscle of rabbits was determined one day to 4 months after experimental stenosis of the aorta. Aortic stenosis was carried out by constricting the ascending part by a metallic ring or silk ligature, reducing the diameter 2 to 5 times. The glycogen content was determined by Pfluger's method. 1-2 days after the aortic stenosis the concn. of glycogen was reduced 2-3 times. Then, in spite of maintaining the stenosis, the glycogen content progressively increased, reaching normal level or even higher after 70 days. In control rabbits, with a ligature without stenosis, the content of glycogen in the myocardium 1-2 days after operation was normal or near normal. It is assumed that the increase of glycogen in the myocardial depot in experimental aortic stenosis is controlled by the action of the c.n.s. on the heart muscle. (Russian)

A. D. THORNTON-JONES

3

MEYERSON, F. Z.

USSR, Medicine - Pathophysiology

Card 1, 1

Pub. 17-14/23

FD-256i

Author

: Meyerson, F. Z.; Kobozev, G. V.

Title

: On a method for forming an experimental stenosis of the aorta

Periodical

: Byul. eksp. biol. i med. 5, 50-52, May 1955

Abstract

: Describes a method for forming an experimental stenosis of the aorta in rabbits which permits the following: constriction of the aorta following an appreciable interval of time after the operation, gradual constriction of the aorta, and removal of the ligature after a period of constriction of the aorta without requiring a second operation. Diagrams. Three references, two of them USSR (since 1940).

Institution

: Central Scientific Research Institute of Physical Methods for Therapy imeni I. M. Sechenov (Director O. V. Glebova), Yalta

Submitted

: July 22, 1954 by Academician A. D. Speranskiy

USSR/Medicine/Medicine- Cardiology- Neurophysiology- Ultraviolet
irradiation

FD-2945

Card 1/1 Pub. 17-9/23

Author : Meyerson, P. Z.

Title : ~~INFLUENCE OF ULTRAVIOLET IRRADIATION ON THE REFLEX REGULATION OF~~
Influence of ultraviolet irradiation on the reflex regulation of
cardiac activity

Periodical : Byul. eksp. biol. i med. 7, 33-37, July 1955

Abstract : Author describes his experiments with ultraviolet irradiation,
in doses which produce erythema, on the nerve regulation of the
heart activity. He determined an inclination toward depression of
reflex bradycardia and in some cases even an increase in reflex
tachycardia. Ultraviolet light in erythematic doses had a defi-
nite effect on the reflex frequency of cardiac activities but -
with some exceptions - did not noticeably affect the original
heart rhythm. He concludes that a basic role is played in the
mechanism of the irritating effect of erythema from ultraviolet
irradiation on the nerve regulation of the heart activity, by
pulse currents conditioned by irritation of the skin receptors.
18 references, 18 USSR, 7 since 1940, graphs and table.

Institution : Central Scientific-Research Institute of Physical Methods of
Therapy imeni Sechenov (Dir. O. V. Glebova), Yalta

Submitted : 23 August 1954

EXCERPTA MEDICA Sec 5 Vol. 10/8 Pathology Aug 57

2369. MEYERSON F. Z. *Restoration of renal function after prolonged hydronephrosis (Russian text) ARKH. PATOL. 1956, 18/6 (109-III) illus. 2
After recalling that the renal function may be restored 9 weeks after ligature of the ureter, an attempt is made to understand the mechanism of such restoration. After ligature of the ureter, a certain number of nephrons either function less or do not

210 57
function at all. This functional inhibition has a reflex origin. It is by means of these nephrons temporarily put at rest that the renal function can be restored.

Tverdy - Antwerp

PIOMTKOVSKIY, I.A., professor; MEYERSON, F.Z., kandidat meditsinskikh nauk

Second All-Union Conference of Pathophysiologists. Arkh.pat. 18
no.8:107-115 '56. (MLRA 10:2)

(PHYSIOLOGY, PATHOLOGICAL--CONGRESSES)

USSR/Human and Animal Physiology - Effects of Physical
Factors. Ionizing Radiation.

Abs Jour : Rab. Zhur - Biol., No 13, 1958, 34703

Author : Plonkovskiy, I.A., Maklachevskiy, V.Ye., Meyerson, I.S.

Inst : -

Title : Effects of Radioactive Cobalt Gamma-Rays upon Conditioned
and Unconditioned Reflexes.

Orig Pub : Tr. Vses. konferentsii po radiol. Eksperim. med. rad. 21.
M., Medgiz, 1957, 39-43.

Abstract : After rats were irradiated once with a 600 r dose of Co^{60}
gamma rays, disturbances of motor-food conditioned reflexes
occurred. Degree and development of these disturbances
depended on the area of irradiation. The most severe and
long lasting disturbances occurred after the abdominal
area was irradiated. In cases of general irradiation the
severity of disturbances was less pronounced. Following
general irradiations with 1,500 and 5,200 r doses, changes

Card 1/2

- 32 -

Country : USSR
Category: Human and Animal Physiology. Circulation
Heart.

Abs Jour: RZhDiol., No 19, 1958, 88788

Author : Meyerson, P.Z.

Inst : -

Title : Cardiac Dilation Under Conditions of Compensatory
Hyperfunction

Orig Pub: Patol. fiziologiya i eksperim. terapiya, 1957, 1, No 6,
15-19

Abstract: Investigations of 250 rabbits with 4-6-fold narrow-
ing of the transverse diameter of the aorta permitted
to distinguish three stages of the compensatory pro-
cess: the acute stage (2-10 days), the stage of pro-
longed stable compensation and the last, but not always

Card : 1/2

T-35

Meyerson, F.Z.
MEYERSON, F.Z.

Shortening of reflex apnoea in experimental heart failure [with summary in English]. Biul. eksp. biol. i med. 44 no.9:40-43 S '57.
(MIRA 10:12)

1. Iz kafedry fiziologii nervnoy sistemy i vysshey nervnoy deyatel'-nosti (zav. - deystvitel'nyy chlen AMN SSSR V.V.Parin) Tsentral'nogo instituta usovershenstvovaniya vrachey (dir. - prof. Z.P.Lebedeva), Moskva. Predstavlena deystvitel'nyy chlenom AMN SSSR V.V.Parinyu.

(CARDIOVASCULAR DISEASES, experimental,

reflex apnea in (Rus))

(APNOEA, experimental,

in cardiovasc. defects (Rus))

MEYERSON, F.Z.

Effect of experimental heart failure on conditioned reflexes
inhibiting respiration and heart function [with summary in English]
Biol. eksp. biol. i med. 44 no. 11:33-36 N '57 (MIRA 11:11)

1. Iz laboratorii radiobiologii i eksperimental'noy terapii (zav.
- prof. I.A. Piotkovskiy) Instituta vysshey nervnoy deyatel'nosti
AN SSSR (dir. - deystvitel'nyy chlen AN SSSR A.G. Ivanov-Smolenskiy
Moskva, Predstavlena deystvitel'nyy chlenom AMN SSSR V.V. Parinym.

(AORTIC VALVE, stenosis,

exper., eff. on conditioned reflexes inducing apnea
& bradycardia (Rus))

(APNEA, experimental,

eff. of aortic stenosis on conditioned reflexes
inducing apnea & bradycardia (Rus))

(BRADYCARDIA, experimental,

same (Rus))

(REFLEX, CONDITIONED,

same (Rus))

MEYERSON, F.Z.

Effect of harmful doses of gamma radiation on unconditioned
and conditioned respiratory reflexes. Trudy Inst.vys.nerv.
deiat. Ser. patofiziol. 4:30-47 '58 (MIRA 11:12)

1. Iz laboratorii radiobiologii (zav. laboratoriyey - prof.
I.A. Piontkovskiy) Instituta vyshey nervnoy deyatel'nosti
AN SSSR.

(GAMMA RAYS--PHYSIOLOGICAL EFFECT)
(RESPIRATION)

MYKUL, P.Z., Doc Med Sci -- (part) "On the correlation of function
of the heart in ~~vascular~~ defects. (in Russian) Study ... 195 ...
(Min. of Health USSR. Central Inst. ^{for the} ~~of~~ Adv. Med. Research, Moscow),
20 copies. (EL, 46- , 195)

PARIN, V.V., prof.; MEYERSON, F.Z. (Moskva)

Reflex-adrenal mechanism of edemas and ascites in cardiac de-
compensation. Pat.fiziol. i eksp.terap. 2 no.6:3-8 M-D '58.

1. Daystvitel'nyy chlen AMN SSSR (for Parin). 2. Iz kafedry kli-
nicheskoy i eksperimental'noy fiziologii TSentral'nogo instituta
usovershenstvovaniya vrachey.

(CONGESTIVE HEART FAILURE, physiol.
edema & ascites, reflex-adrenal mechanism (Rus))

(REFLEXES
reflex-adrenal mechanism in edema & ascites in
congestive heart failure (Rus))

(ADRENAL GLANDS, physiol.
adrenal-reflex mechanism in edema & ascites in
congestive heart failure (Rus))

MEYERSON, F.Z. (Moskva)

Significance of the decrease of circulatory function coordination in compensation in cardiac defects. Klin.med. 36 no.5:29-34 My '58

(MIRA 11:7)

1. Iz kafedry fiziologii nervnoy sistemy i vysshey nervnoy deyatel'nosti (zav. - deystvitel'nyy chlen AMN SSSR V.V. Parin) Tsentral'nogo instituta usovershenstvovaniya vrachev (dir. - prof. V.P. Lebedeva).

(HEART DISEASE, physiology

compensatory mechanism, role of decrease of circ. coordination, review (Rus))

AUTHORS:

Buvaylo, S. A., Meyerson, F. Z.

20-118-4-55/61

TITLE:

Histochemical Facts on the Relation Between Glycogen and Fat
in the Myocardium in the Case of Experimental Cardiac Defect
(Gistokhimicheskiye dannyye o sootnoshenii glikogena i zhira
v miokarde pri eksperimental'nom poroke serdtsa)

PERIODICAL:

Doklady Akademii Nauk SSSR, 1958, Vol. 118, Nr 4, pp. 823-825
(USSR)

ABSTRACT:

The second author proved in a previous publication (reference 1) that after an aortic stenosis the concentration of glycogen in the myocardium is decreased 2-3 fold during the first three days, then it is restored gradually and reaches its normal state within 1,5 to 3 months. In the present paper the problem mentioned in the title is studied in the muscle of the left ventricle of the heart soon (within 48 hours, first group) after creating an aortic stenosis, and within 3 months after that (second group). The methodology was described previously (reference 1). A silk ligature was put on. As test animals served rabbits. The third group (control) was formed by 6 animals not operated on. The morphological picture of the myocardium of the control animals is shown in figure 1. In the

Card 1/3

Histochemical Facts on the Relation Between Glycogen and Fat ^{20-118-4-55/61}
in the Myocardium in the Case of Experimental Cardiac Defect

first test group the relative weight of the heart was increased up to 0,30% - 0,32% (compared to 0,24% - 0,27% in normal animals). Macroscopically the enlargement and the extension of the cavities became visible. The histological picture is described. Fat is distributed irregularly in the myocardium, most of it is deposited in fiber groups beside larger veins (figure 2). There is almost no glycogen in the central layer of the myocardium (figure 1). So 48 hours after the operation the histochemically ascertainable content of glycogen in the myocardium was rapidly decreased. As a parallel a distinct fat dystrophy appeared. The hearts of the animals that were killed after 3 months (second group) were strongly enlarged. The septum of the left ventricle had become much thicker. The relative weight of the heart was 0,42% - 0,60%, that is 100% above normal. A histological and a histochemical picture of the distribution of glycogen are given. No fat was found (dying with Sudan III). Thus the glycogen content is renormalized after a longer period after creating an aortic stenosis, whilst the fat dystrophy is decreased. The lowering of the glycogen content and the simultaneous fat deposit shortly after creating a cardiac defect are a subsequent effect of the relative hypoxia.

Card 2/3

Histochemical Facts on the Relation Between Glycogen and Fat 20-118-4-55/61
in the Myocardium in the Case of Experimental Cardiac Defect

Later on the phenomena of this hypoxia recede in spite of the lasting hyperfunction of the heart. This takes place as a consequence of the mobilization of the corona circulation, and of the activating of the oxidative ferment systems. These safeguard the increase of the aerobic resynthesis of the adenosin triphosphoric acid. So the histochemically ascertainable glycogen content is restored, and the fat deposits in the myocardium recede. The problem has not yet been solved whether these two phenomena only show a similar course or whether they are intimately connected by a certain biochemical mechanism. There are 3 figures and 5 references, 3 of which are Soviet.

ASSOCIATION:

Central Institute for Postgraduate Instruction of Physicians
 (Tsentral'nyy institut usovershenstvovaniya vrachey). First
 Medical Institute imeni I. M. Sechenov, Moscow (Pervyy Moskov-
 skiy meditsinskiy institut im. I. M. Sechenova)

PRESENTED:

August 8, 1957, by L. A. Orbeli, Academician

SUBMITTED:

Card 3/4
 2

August 1, 1957

SCV/1-1-1-1
 An Experimental Heart Lesion Upon the Electroencephalogram

Emergency period of the compensatory translocation of
 signs of inhibition in the cortex either by means of sensory
 stimulation (ref 19) or by means of the reticular-formation
 mechanism (ref 20, 21). There are 5 figures and 1 table, 1 of
 which are Soviet.

1. AUTHOR: Tsentrallyy Institut usovershenstvovaniya vrachey
 (Central Institute for Advanced Training of Physicians)
 2. DATE: March 19, 1978, by L. A. Orbeli, Member, Academy of Sciences
 USSR
 3. CITED: March 18, 1978

1978, 3

MEYERSON, F.Z. (Moskva)

Changes in unconditioned interoceptive reflexes of the heart of dogs
with experimental defects. Pat.fiziol. i eksp.terap. 3 no.6:30-35
N-D '59. (MIRA 13:3)

1. Iz kafedry klinicheskoy i eksperimental'noy fiziologii (zavedu-
yushchiy - deystvitel'nyy chlen AMN SSSR V.V. Parin) TSentral'nogo
instituta usovershenstvovaniya vrachey.
(AORTIC STENOSIS experimental)
(REFLEX)

MEYERSON, F.Z.; MARKOVSKAYA, G.I.

Mechanism of the formation of ascites in portal hypertension.
Eksper. khir. 4 no.6:51-57 N-D '59. (MIRA 14:6)

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Instituta eksperimental'noy i klinicheskoy onkologii (dir. -
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